

Application No. 09/996,951

2

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

- 1 21. (currently amended) A method of achieving a resonant frequency of  
2 acoustic resonators comprising:  
3                    fabricating a plurality of said acoustic resonators on a basis of  
4 forming each said acoustic resonator to include an electrode-piezoelectric  
5 stack in which layer dimensions are selected to achieve an intended  
6 operational resonant frequency, said intended operational resonant  
7 frequency being a target final operational resonant frequency, each said  
8 electrode-piezoelectric stack having conductive electrode layers;  
9                    determining whether said acoustic resonators have current  
10 resonant frequencies that are within an acceptable margin of error of said  
11 intended operational resonant frequency; and  
12                    for occasions in which said current resonant frequencies are  
13 outside of said acceptable margin of error, exposing said acoustic resonators  
14 to a controlled gaseous environment in which at least one said electrode layer  
15 is oxidized, including intentionally regulating said controlled gaseous  
16 environment on a basis of providing each said acoustic resonator with a final  
17 operational resonant frequency that is within said margin of error of said  
18 intended operational resonant frequency;  
19                    wherein said exposing includes regulating said temperature and  
20 oxygen content to provide a downward adjustment of said resonant  
21 frequencies in a controlled manner, said exposing further including controlling  
22 flow rates of gases, including oxygen.
- 1 22. (currently amended) The method of claim 21 wherein said exposing  
2 includes controlling said temperature and controlling said oxygen content  
3 within said controlled gaseous environment based on establishing said final  
4 operational resonant frequencies within said margin of error of said intended  
5 operational resonant frequency.

Application No. 09/996,951

3

1 23-25. (canceled)

1 26. (previously presented) The method of claim 21 wherein said exposing  
2 occurs at a temperature not exceeding 215°C.

1 27. (new) A method of achieving a resonant frequency of acoustic  
2 resonators comprising:  
3 fabricating a plurality of said acoustic resonators on a basis of  
4 forming each said acoustic resonator to include an electrode-piezoelectric  
5 stack in which layer dimensions are selected to achieve an intended  
6 operational resonant frequency, said intended operational resonant  
7 frequency being a target final operational resonant frequency, each said  
8 electrode-piezoelectric stack having conductive electrode layers;  
9 determining whether said acoustic resonators have current  
10 resonant frequencies that are within an acceptable margin of error of said  
11 intended operational resonant frequency; and  
12 for occasions in which said current resonant frequencies are  
13 outside of said acceptable margin of error, exposing said acoustic resonators  
14 to a controlled gaseous environment in which at least one said electrode layer  
15 is oxidized, including intentionally regulating said controlled gaseous  
16 environment on a basis of providing each said acoustic resonator with a final  
17 operational resonant frequency that is within said margin of error of said  
18 intended operational resonant frequency;  
19 wherein said exposing includes regulating said temperature and  
20 oxygen content to provide a downward adjustment of said resonant  
21 frequencies in a controlled manner, said exposing further including controlling  
22 flow rates of gases, including oxygen, said exposing occurring in a Rapid  
23 Thermal Annealer (RTA).

1 28. (new) The method of claim 27 wherein said exposing includes controlling  
2 said temperature and controlling said oxygen content within said controlled  
3 gaseous environment based on establishing said final operational resonant  
4 frequencies within said margin of error of said intended operational resonant  
5 frequency.